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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,935	10/27/2003	John G. Woods	LC-499	2111
31217	7590	05/17/2006	EXAMINER	
LOCTITE CORPORATION 1001 TROUT BROOK CROSSING ROCKY HILL, CT 06067			SELLERS, ROBERT E	
			ART UNIT	PAPER NUMBER
			1712	

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	<p>Application No. 10/692,935</p>	<p>Applicant(s) WOODS ET AL.</p>	
	<p>Examiner Robert Sellers</p>	<p>Art Unit 1712</p>	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 11 May 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: None.  
Claim(s) objected to: None.  
Claim(s) rejected: 19-22 and 34.  
Claim(s) withdrawn from consideration: 1-18 and 23-33.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_  
13. ☐ Other: \_\_\_\_\_

Robert Sellers  
Primary Examiner  
Art Unit: 1712

1. Wang et al. is withdrawn based on the depiction of the mechanism of the introduction of epoxy groups by the formation of a semipinacol radical which initiates the polymerization of n-butyl acrylate, thereby forming an epoxy-terminated poly(n-butyl acrylate) wherein the epoxy groups are attached by substituents different from the claimed  $\beta$ -hydroxyester linkage (page 791, second column).
2. The presence of the acrylonitrile and/or vinyl acetate in the carboxy-functional acrylic polymer precursor of Fock et al. Patent No. 4,460,746 still yield a molecular weight of from 1000 to 3000 (col. 2, lines 19-21) wherein the resulting epoxy-modified acrylic polymer exhibits sufficient flow to infiltrate the interstices of a fiber-reinforced carrier webs (col. 4, lines 4-7). There is no evidence that the flow of the epoxy-modified acrylic polymer is unsuitable for capillary flow underfill applications which is not a required feature of the claims.
3. The claimed carboxylic acid functionalized polyacrylate is generic to the carboxy-functional acrylic polymer as long as the molecular weight and average functionality is within the claimed parameters, regardless of the individual monomers that are copolymerized. As indicated hereinabove, the molecular weight is well within the claimed parameters. The copolymerization with from 1 to 20 weight percent of (meth)acrylic or itaconic acid (col. 2, lines 9-10) inherently yields an average functionality of above the claimed 2.2.

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4. Regardless of whether the epoxy-modified acrylic polymer of Fock et al. is labeled as a flexibilizer, reactive modifier or toughener, the equivalent reaction of a carboxyl-functional acrylic polymer with an epoxy resin to form the epoxy-modified acrylic polymer of Fock et al. and the claims confers equivalent properties to the cured formulation with an epoxy resin and curing agent.
5. There is no evidence of record supporting the allegations of improved fracture toughness and flowability of the claimed epoxy-extended polyacrylate over the prior art epoxy-modified acrylic polymer.
6. The claims are directed to a method of improving the fracture toughness of an epoxy-based adhesive and curable epoxy resin adhesive formulation. Fock et al. sets forth a composition comprising an epoxy-modified acrylic polymer, an epoxy resin and a polyamine curing agent (col. 5, lines 9-20 and 67-68) useful as an adhesive (col. 4, lines 1-2). The claims do not denote ~~any~~ limitations pertaining to flow and an application as an underfill adhesive to distinguish over the prior art adhesive. The adhesive of Fock et al. exhibits sufficient flow to infiltrate the interstices of a carrier web. This aspect along with the epoxy-modified acrylic polymer equivalent to the claimed epoxy-extended polyacrylate would inherently demonstrate an improved fracture toughness.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Sellers whose telephone number is (571) 272-1093. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

rs  
5/11/2006



ROBERT E.L. SELLERS  
PRIMARY EXAMINER